That out it had after all of first first first advantaments and the state of

WHAT IS CLAIMED IS:

- 1 1. An access device comprising:
- a timeslot allocation table including timeslot allocation information; and
- a transmitter coupled to the timeslot allocation table, wherein the transmitter transmits
- 4 data and updated timeslot allocation information in accordance with the timeslot allocation
- 5 information.
- 1 2. The access device according to claim 1, further comprising at least one input channel,
- 2 wherein the transmitter further allocates timeslot lengths for the at least one input channel
- 3 according to the timeslot allocation information.
- 1 3. The access device according to claim 2, wherein the timeslot allocation table receives
- 2 updated timeslot allocation information and the transmitter reallocates timeslot lengths according
- 3 to the updated timeslot allocation information.
- 1 4. The access device according to claim 2, wherein the timeslot allocation table further
- 2 includes timeslot allocation information for each of the at least one input channel.
 - 1 5. The access device according to claim 1 further comprising at least one input channel,
- 2 wherein the transmitter includes a time division multiplexer and wherein the time division
- 3 multiplexer time division multiplexes data from the at least one input channel into timeslots
- 4 according to the timeslot allocation information.
- 1 6. The access device according to claim 5, wherein the timeslot allocation information
- 2 includes the number of clock cycles allocated to each of the at least one input channel, and the
- 3 channel characteristics associated to each of the at least one input channel.

- 1 7. The access device according to claim 1, wherein the transmitter transmits updated
- 2 timeslot allocation information in a reserved slot along with the transmitted data.
- 1 8. The access device according to claim 1, further comprising:
- a second timeslot allocation table including second timeslot allocation information; and
- a receiver coupled to the second timeslot allocation table and coupled to the transmitter.
- 1 9. The access device according to claim 1, further comprising a controller coupled to the
- 2 timeslot allocation table, wherein the controller receives updated timeslot allocation information
- 3 and updates the timeslot allocation table with the updated timeslot allocation information.
- 1 10. The access device according to claim 9, wherein the updated timeslot allocation
- 2 information includes information regarding the addition of channels.
- 1 11. The access device according to claim 9, wherein the updated timeslot allocation
- 2 information includes information regarding the removal of channels.
- 1 12. The access device according to claim 1, wherein the timeslot allocation table includes
- 2 characteristics of at least one channel recorded into a corresponding channel section of the
- 3 timeslot allocation table.
- 1 13. The access device according to claim 12, wherein the characteristics of the at least one
- 2 channel include at least one of data type information, time stamp information, priority
- 3 information, and sequence information.
- 1 14. The access device according to claim 12, wherein the characteristics of the at least one
- 2 channel include inter-channel relationship information used to combine multiple non-adjacent
- 3 timeslots into one virtual timeslot.

- 1 15. The access device according to claim 1, wherein the transmitter further transmits time
- 2 division multiplexed data and packetized data simultaneously without disrupting the flow of the
- 3 corresponding data.
- 1 16. A method of controlling access to a network comprising:
- 2 reserving a portion of transmitted data for timeslot allocation information of at least one
- 3 channel; and
- 4 storing the timeslot allocation information in a timeslot allocation table.
- 1 17. The method according to claim 16, further comprising time division multiplexing the
- 2 timeslot allocation information with the transmitted data.
- 1 18. The method according to claim 16, further comprising updating the timeslot allocation
- 2 information with updated timeslot allocation information to reallocate a timeslot for the at least
- 3 one channel.
- 1 19. The method according to claim 18, wherein the updated timeslot allocation information
- 2 includes information regarding the addition of a second channel to the at least one channel.
- 1 20. The method according to claim 18, wherein the updated timeslot allocation information
- 2 includes information regarding the subtraction of a second channel from the at least one channel.
- 1 21. The method according to claim 18, wherein the updated timeslot allocation information
- 2 includes information regarding increasing the length of a timeslot allocated to the at least one
- 3 channel.
- 1 22. The method according to claim 18, wherein the updated timeslot allocation information
- 2 includes information regarding decreasing the length of a timeslot allocated to the at least one
- 3 channel.

- 1 23. The method according to claim 16, further comprising receiving received data including
- 2 updated timeslot allocation information time division multiplexed with the received data.
- 1 24. The method according to claim 16, wherein the timeslot allocation table includes
- 2 characteristics of at least one channel recorded into a corresponding channel section of the
- 3 timeslot allocation table.
- 1 25. The method according to claim 24, wherein the characteristics of the at least one channel
- 2 include at least one of data type information, time stamp information, priority information, and
- 3 sequence information.
- 1 26. The method according to claim 24, wherein the characteristics of the at least one channel
- 2 include inter-channel relationship information used to combine multiple non-adjacent timeslots
- 3 into one virtual timeslot.
- 1 27. The method according to claim 16, further comprising transmitting time division
- 2 multiplexed data and packetized data simultaneously without disrupting the flow of the
- 3 corresponding data.
- 1 28. An access device comprising:
- 2 means for allocating a portion of a bandwidth for timeslot allocation information; and
- a transmitter for transmitting updated timeslot allocation information in the portion of the
- 4 bandwidth allocated for the timeslot allocation information.